

**To:** Ford, Robert[Ford.Robert@epa.gov]; rgford67[rgford67@hotmail.com]  
**From:** Acree, Steven  
**Sent:** Thur 9/8/2016 9:47:29 PM  
**Subject:** RE: Aerovox Phase III Remedial Action Plan (RAP)

Here are considerations for you to consider including (or not) in what you send to Ginny & company.

A limited review of the Phase III Remedial Action Plan (RAP) was performed. As requested, the review focused on the OU3 remedial alternatives and selected alternative. It is noted that a groundwater flow model was developed for use in the remedy evaluations presented in the RAP. This model was not reviewed.

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#### Remedial Alternatives for Overburden Groundwater

Discussions of the effectiveness of the proposed remedial alternatives for overburden groundwater were not comprehensive. In general, the ratings are subjective and didn't appear to fully consider the possible effects of each alternative on the harbor cleanup efforts. In fact, it is not clear that the selected remedial alternative for overburden groundwater (OU3B-4) will be as effective with respect to preventing contaminant migration to the river as indicated in the remedial action plan.

Available data indicate that soils with high contaminant concentrations that may potentially be indicative of dense nonaqueous phase liquids are present in the vicinity of the proposed permeable reactive barrier (PRB). Due to the inherent difficulties in accurately defining DNAPL distribution in the subsurface, the distribution of DNAPL may also extend beyond the proposed PRB. Any such material on the river side of the PRB would not be treated by the PRB, thereby, reducing the effectiveness of the proposed remedy. In addition, the PRB would be ineffective in treating DNAPL that is either currently migrating or that may be induced to migrate under future conditions. Such a possibility was not discussed in the RAP. Given the presence of highly contaminated deep soils in this area, it would appear that the possibility for mobilization of some of these soils during sediment removal from the harbor may exist. It does not appear that this mechanism of contaminant transport to the harbor was considered in the evaluations.

It is also noted that evaluations of the effectiveness of the PRB with respect to preventing migration of dissolved PCBs did not appear to consider the possibility that migration may be facilitated by dissolved organic material, potentially including the organic material proposed for inclusion in the PRB design. In addition, it appears that the PRB was conceptualized to be

constructed using material with a hydraulic conductivity similar to or greater than that of the aquifer materials. In practice, this can be difficult to accomplish. If the hydraulic conductivity of the PRB is significantly less than the aquifer, groundwater elevations upgradient of the PRB will increase and likely result in additional contaminant migration from the overburden, through the bedrock, and into the harbor. With respect to control of contaminant migration from the site to the harbor, it would appear that a low permeability vertical barrier installed to bedrock and combined with groundwater extraction for hydraulic gradient control, as included in Alternative OU3B-3, could be significantly more effective than the proposed PRB.

Steven D. Acree, Hydrologist

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**From:** Ford, Robert

**Sent:** Wednesday, August 31, 2016 10:28 AM

**To:** Acree, Steven <Acree.Steven@epa.gov>

**Subject:** RE: Aerovox Phase III Remedial Action Plan (RAP)

Yeah, everybody is pushing the FY end.

Robert Ford

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**From:** Acree, Steven  
**Sent:** Wednesday, August 31, 2016 11:02 AM  
**To:** Ford, Robert <[Ford.Robert@epa.gov](mailto:Ford.Robert@epa.gov)>  
**Subject:** RE: Aerovox Phase III Remedial Action Plan (RAP)

Thanks. I think I'll be able to contribute but it will be tight unless I re—re-prioritize another review.

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**From:** Ford, Robert  
**Sent:** Wednesday, August 31, 2016 10:00 AM  
**To:** Acree, Steven <[Acree.Steven@epa.gov](mailto:Acree.Steven@epa.gov)>  
**Subject:** FW: Aerovox Phase III Remedial Action Plan (RAP)

Placed this at O:\ORD Short Term (30 day) Network Storage\Ford

Haven't yet looked at it. You gonna have any time to contribute to a Sept 8 submission?

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**From:** Lombardo, Ginny

**Sent:** Wednesday, August 31, 2016 10:21 AM

**To:** Wolf, Steven NAE <[Steven.Wolf@usace.army.mil](mailto:Steven.Wolf@usace.army.mil)>; Morris, Mike (Bourne) <[Mike.Morris@jacobs.com](mailto:Mike.Morris@jacobs.com)>; Ford, Robert <[Ford.Robert@epa.gov](mailto:Ford.Robert@epa.gov)>; Catri, Cindy <[Catri.Cynthia@epa.gov](mailto:Catri.Cynthia@epa.gov)>; Stanley, Elaine <[stanley.elainet@epa.gov](mailto:stanley.elainet@epa.gov)>

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**Subject:** FW: Aerovox Phase III Remedial Action Plan (RAP)

Steve, Mike and Robert-

EPA intends to transmit comment on the Aerovox Phase III RAP to MassDEP by COB September 9, 2016. Please review and **get me comments on the document by COB September 8, 2016** so that I can consolidate comments to get to the DEP on the 9<sup>th</sup>. Our comments should be limited to matters related to the impact of the alternatives evaluated and the elements of the selected alternative on the Superfund cleanup and/or impacts to the harbor – i.e., generally our comments should relate to concerns or questions related to the OU3 remedial alternatives and OU3 selected alternative. I do not want to send DEP voluminous comments so please attempt to focus comments on significant concerns and issues. Thanks.

Kim Tisa may be issuing TSCA related comments on the Phase III directly to AVX.

Ginny Lombardo, Chief

Remediation & Restoration II Branch

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**From:** Stanley, Elaine

**Sent:** Tuesday, August 23, 2016 10:11 AM

**To:** 'Wolf, Steven NAE' <[Steven.Wolf@usace.army.mil](mailto:Steven.Wolf@usace.army.mil)>; 'Morris, Mike (Bourne)' <[Mike.Morris@jacobs.com](mailto:Mike.Morris@jacobs.com)>; Ford, Robert <[Ford.Robert@epa.gov](mailto:Ford.Robert@epa.gov)>; Catri, Cindy <[Catri.Cynthia@epa.gov](mailto:Catri.Cynthia@epa.gov)>; Lederer, Dave <[Lederer.Dave@epa.gov](mailto:Lederer.Dave@epa.gov)>; Barczynski, Hoshaiah <[barczynski.hoshaiah@epa.gov](mailto:barczynski.hoshaiah@epa.gov)>; Dickerson, Dave <[dickerson.dave@epa.gov](mailto:dickerson.dave@epa.gov)>  
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**Subject:** Aerovox Phase III Remedial Action Plan (RAP)

FYI - Please find below the MassDEP website link to download the Former Aerovox site 21E Phase III RAP which constitutes AVX's FS/Proposed Plan. It can be found under the date 08/22/16 and is 17 mb.

<http://public.dep.state.ma.us/fileviewer/Rtn.aspx?rtn=4-0000601>

Please let me know if you have trouble downloading, thanks.

Elaine

Elaine Stanley

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